

FIBER OPTIC CONNECTOR HAVING TRANSLATING TERMINI

ABSTRACT OF THE DISCLOSURE

[0118] A fiber optic connector is provided having translating termini, such that the terminal end of the termini will extend out of the forward end of an insert cap to prevent mud or debris from becoming lodged within the bores of the insert and within alignment sleeves which are contained within the insert cap. The fiber optic cable connector preferably is provided with continuous ceramic sleeves to align the adjacent termini of optical fibers included within respective ones of the cables. The continuous ceramic sleeves have internal bores which are slightly larger than the outside diameter of the periphery of the termini, providing a clearance fit between the continuous ceramic sleeves and respective ones of the termini. The termini are independently gimbaled, with gimbal points being disposed distally from respective mating planes between opposing terminal ends of the termini. Floating seal assemblies extend around respective ones of the termini between the mating planes and the gimbal points, and seal between the respective ones of the termini and a connector housing. The floating seal assemblies each include an annular-shaped, floating collar having an aperture through which a respective one of the termini extends. The floating collar is free to move parallel to a longitudinal axis of the respective termini, and also transverse thereto. A first seal element seals between the aperture of the floating collar and the respective termini. The floating collar includes a face which extends transverse to the longitudinal axis of the respective termini. A second seal element extends around the longitudinal axis of the respective termini and is sealingly engaged between the face of the floating collar and a seal surface of a bore in the connector housing.